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EDUCATIONAL MUSEUMS

AT THE

Educational Centres of India.

I

Preliminary Remarks.

1. **Introduction to the Subject.**—In this age of enlightenment and progress, the necessity and utility of Educational Museums at centres of education can hardly be over-emphasized. Students require definite information on hundreds of subjects of which they read in their text-books and newspapers and hear in public lectures. A visit to a first class educational museum, when visited under the guidance of a teacher, does not only provide palatable food for their curiosity-loving imagination, but also considerably enlarges their mental horizon. The necessity of such museums is proved by the existence of not less than 2000 Scientific Museums in the world, exclusive of the Museums of Art. (This number is mentioned in the "*Encyclopaedia Britanica*" published 30 years ago). . . .

2. It is my belief that if articles as are enumerated in the "Classification of Objects" and collected according to the "Basis or Principle of Collection" and "Scope of the Museum", printed elsewhere, a first class museum can be easily established.

3. If the heads of educational institutions will give a little encouragement to students by way of awarding prizes, medals and certificates, the latter will gladly interest themselves in collecting articles of educational value, and in arranging and exhibiting them. If properly tackled, not only the students, but also the teachers will be vying with each other in presenting to their museum, when started, works of art, such as drawings, paintings, embroidery, etc., samples of fauna and flora of the district, and other objects of educative value scattered profusely over the wide world. It is thus hoped that in course of time the institution authorities will find themselves in possession of numerous articles of which their museum may be truly proud.

4. When the institution authorities have funds at their command, or are in a position to enlist the sympathy of the well-to-do people, the utility of such museum can considerably be increased by investing some money on models of important machines, such as prime-movers, motor cars, oil-engines, gas-engines, locomotives, aeroplanes, and other scientific apparatus. Every student nowadays feels interested in wireless telegraphy, loud-speakers, telephony and picture-transmission, cinemas, talkies, gramophones, and a number

of similar subjects and objects. But few, indeed, among the students and even the grown-up people, do really understand their principles. An educational museum, in my humble opinion, is the best and cheapest way of diffusing accurate knowledge about such things.

5. The exhibits under the class designated "School Exhibits" will comprise the productions of boy and girl students of the institution to which such a museum belongs, and also other institutions, Indian or foreign. These "School Exhibits" will, in addition to their educational value, serve the useful purposes of :—

- (a) Giving an idea to the students of the methods adopted and work done in different institutions.
- (b) Stimulating powers of imagination and the spirit of healthy rivalry among the students.
- (c) Making it possible for those interested in education to compare the educational work done in different institutions, and to judge the capacity of their staff and students.

Among other things, the School Exhibits shall deal with the following subjects :—

(a) Handwriting.	(b) Composition.
(c) Drawing.	(d) Painting.
(e) Designs.	(f) Works of art.
(g) Nature study.	(h) Toys making.
(i) Kindergarten.	(j) Science.

6. To those who may feel sceptical about the scheme, and be reluctant to appreciate its utility, I would in all humility refer to the "Jnan Bhandar Museum"

attached to the "Radhasoami Educational Institute", Dayalbagh, Agra. This Museum has been developed exactly on the lines indicated in this scheme. It has been in existence for the last 15 years. The "Classification of Exhibits" in this Museum was forwarded for opinion to the Curator of the famous museum named "United States National, Museum" at Washington, U. S. A., and was entirely approved by him. Hundreds of students and other visitors have enjoyed visits to the Museum, and high officials from the Governor of the Province to the Inspectors of Schools, have expressed their appreciation of its work, in unequivocal terms. The Institute Authorities also fully appreciate the utility of the Museum, and I am sure that as soon as more room has been provided, it will expand very considerably and will become a still more highly valuable asset to the institution.

7. We hear and read so much about the utility of seasonal shows and moving exhibitions. But why not devote the money and energy spent on these temporary and ephemeral displays to permanent and lasting institutions and obtain abiding results ? If Societies and Government Departments join heads and hearts and help Educational Museums by presenting their exhibits free of charge to the latter, results of a far-reaching value and importance can be obtained at a trifling cost. The following Societies and Departments may be able and willing to help considerably in establishing Educational Museums in Educational Centres of India :—

(a) School of Tropical Medicine and Hygiene, (b) Anti-Tuberculosis Societies, (c) Temperance Societies, (d) Social Service Leagues, (e) Scientific and Educational Film Society, (f) Public Health Departments, (g) Health Departments of Municipalities, (h) Red Cross Society, (i) Universities, (j) Vaccination Departments, (k) Anti malarial Societies, (l) Leper Association of India. (m) Blind Schools, (n) Photographic Societies, (o) Departments of Agriculture, (p) Departments of Industry, (q) Departments of Education, (r) Antiquarian Societies, (s) Philatelic Societies, (t) Philharmonic Societies, (u) Health Societies, (v) Maternity and Childwelfare Societies, (w) Geographical and Historical Societies, (x) Fine Arts Societies, (y) Co-operative Societies, (z) Zoological Gardens, (za) Botanical Gardens, (zb) Agricultural Societies, etc. etc.

II

Importance of Object Lessons.

1. Object Lessons.—It is a wellknown fact that we gain knowledge of objects by the use of our five sense-organs. But it is not known to many that the senses of babies are developed only gradually. Babies have not very correct ideas of distances, colours,

sounds, tastes, etc., just as the common uneducated people cannot appreciate the aesthetic beauties of paintings, musical melodies, refined tastes, niceties of odour or the difference between the slight variations of weights, temperatures or pulse-beats. Without proper culture, the senses cannot be developed. How difficult it is to explain the nice shades of difference in colours or tastes to persons who never perceived them before ! For example, one who never tasted a sweet particle or saw a red colour before, *can not* form any idea of sweetness or redness. All of us know the story of the six blind men who wanted to know what an elephant was like, but failed hopelessly in the attempt. One thought the animal was like the spears as he happened to fall against the elephant's tusks. Similarly the animal was regarded respectively as a rope, a wall, a tree or a fan according to the particular organ touched by one of these blind men. They *could have no knowledge of colour, true shape, perspective view, contours, or proportionate sizes of the different organs of the elephant*, which however could be had at a glance by a man who possessed sight. A blind man, by constant exercise of the faculty of touch, can read dotted Brail literature with ease. A man who has sight requires similar or greater exercise to read Brail literature by touch ;—because the sense of touch of the blind is keener than that of the man who sees. The parents and relatives of children, and later on teachers, are instrumental in developing their sense-faculties. The teachers at schools and colleges should

similarly increase the knowledge of their inexperienced and immature students by showing them various objects, and giving the opportunities to exercise their sense-organs. It may be added here that knowledge of the objects derived from sense-perceptions alone, without the exercise of the faculty of discrimination, will not be very useful. Memory also plays a very important part. Children acquire more and more knowledge by repeatedly perceiving the same objects in various settings and situations. It is the noble duty of the teachers to impart the right kind of knowledge to their students through graphic descriptions of objects and their properties, and through every available device or aid to visualisation.

2. Collection and Exhibition of Objects.— If the statements of the preceding paragraph are based on facts and observations, it follows that schools and colleges are bound by their duty to the students to *collect* such objects the knowledge of which is necessary to the students, and *exhibit* them to the students with explanations. If the schools or colleges cannot afford to make such collections, the students should be taken to such a Museum where those things are kept. They will fail in their duty if they neglect to do so. The schools and colleges which have no such exhibits are not adequately equipped. About 70 years ago the able Headmaster of the Government Normal School of Calcutta, the foremost school of Calcutta at that time, collected some common objects and engaged a special teacher for explaining their proper-

ties before 2 or 3 combined classes in a gallery ; so that the students of all classes up to Middle Vernacular might by turn gain such knowledge one or two hours in a week. He caused the following books to be printed for imparting object-lessons ;—(1) "Lessons on Things" ; (2) *Pranibrittanta* (in Bengali, meaning Description of Animals) ; (3) *Vastu Vichar* (in Bengali, meaning Description of Objects) ; and (4) *Hitasiksha* in 4 parts (in Bengali, containing particulars of common foods and manufactures) ; besides *Bodhodaya* (in Bengali, a free rendering of "Rudiments of Knowledge" written and published by Pandit Iswar Chandra Vidyasagar). Sir Asutosh Mukherjee and Dr. Rabindra Nath Tagore, my class-mates, and other luminaries of that school were eye-witnesses of the above method of imparting education.

Since then up to the present time a large number of books on Object Lessons have been published in various languages giving nice descriptions of objects of the three kingdoms ; also thousands of pictorial cards and big pictures and charts have been published in black and white and also in natural colours. In this century persons who take interest in the matter of educating the students and general public, have taken advantage of the inventions of photography (in black and white), natural colour-photography, photo-printing, bromide enlargements, lithographs, chromolithos, bioscopes, talkies, magic lanterns, gramophones, wireless sets, etc., and have printed or issued millions of pictures, films, slides, etc. for the spread of

education broadcast. In the temporary *Exhibitions* objects are collected and exhibited, but in the *Museums* they are permanently located. Object-Lessons and Lectures on Sciences and Industrial Arts with practical illustrations are far better methods of education than the mere shows at Exhibitions and Museums without any provision for explanations.

3. Visual and Audible Education.—There are few things in the world about which we can acquire knowledge by means of touch, smell, taste or sound ; we gain knowledge of most of the things by means of our sight. In the Museumis of India there is generally the prohibitive order, "Do not touch anything". Again, there is a large number of objects in this world, of which either we cannot have direct knowledge of the originals by our senses or it is very difficult for the majority of mankind to gain direct knowledge of them by the use of five senses ; for example, sunmit of the Everest, the Aurora Borialis, the extinct animals of antiquity, etc. With the help of some modern appliances graphic ideas of the following can be given :—

(a) Wonders of nature or natural phenomena, such as, Niagra Falls, Visuvius in eruption, tempestuous waves of oceans, glaziers, the Valley of 10 Thousand smokes in America, prairie on fire, Polar lights, pranks and sounds of animals in their natural abode or at the zoos of foreign countries, animal life in the deep sea, etc. (b) Wonders of art, such as, the Taj, Sky-scrappers of New York, St. Peter's Church, Crystal Palace, the Capital of Washington, the Effel Tower,

the Panama Canal, etc. (c) Pictures of the remains of antiquity, such as, Mahen jo Daro, Tomb of Tutenkhaman, ancient buildings of Rome, Monasteries of Buddha, etc. (d) Famous *mandirs*, churches, tombs, images, statues, sarcophagus, etc. (e) Steamers with their interiors, Bridges and Mountain Railways, etc. (f) The principal cities, their plans, panoramic views, interiors of theatres, parliamentary houses and lectures, etc. (g) Pictures and Handwritings of Famous Persons of the World, etc. (h) Foundries, manufactories, lighthouses, mines, architectures, buildings, etc. (i) Photos or photo-prints of famous paintings, engravings, embroidery, etc. (j) Land, Water and Air Vehicles of ancient and modern times ; (k) Magnified living or dead germs of contagious diseases ; various diseases ; X ray photos ; Charts on Childwelfare and Maternity ; Sanitary Appliances ; Intra-Uterine Life, etc. (l) Pictures on Physiology, Anatomy and Pathology ; (m) Races of Mankind and their Customs ; (n) Pictures of Works of Handiwork on wood, stone or metal, etc. (o) Pictures of current and ancient Coins and Medals, etc. (p) Mythological pictures, (q) Wonders of Navigation ; (r) Movements of the planets and satellites of the Solar System (in the absence of Orrery) ; Astronomical pictures of the Sun, Moon and firmament ; (s) Plays, Sports and Pastimes, etc. (t) Pictures of famous Educational Institutions ; Museums ; Exhibitions, etc. (u) Photos of Ghosts ; Charts on Phrenology, Astrology ; Physiognomy ; Palmistry ; Eugenics ; Astral body ; six *Chakras*, etc. (v) Pictures of Plants, Flowers,

Fruits, Vegetables, etc. (w) Pictures of English and Indian Musical Instruments and Plays on them by Gramophones ; (x) Pictures of the Great War ; (y) Beautiful Scenery of many lands ; (z) Pictures of Dresses and Costumes, Ethnology of different Countries ; (za) Pictures of birds, fishes, mammals, reptiles, and insects of India and other lands, etc., etc.

Showing pictures and explaining them is one of the best and cheapest methods of education. On account of scanty grants from Government and small schooling fees, several schools and colleges of India cannot buy Magic Lantern, Cinema, Talkie, Slides and Films, etc. But in big educational centres, such as, Calcutta, Bombay, Madras, Lucknow, Rangoon, Lahore, Allahabad, etc., either the local University and the Education Department should provide these things ; or several colleges and schools can jointly start an Educational Museum and lend the visual and auditory appliances and pictures, slides, films and records to the individual schools and colleges. If after reading these simple suggestions, the educational authorities are unable to appreciate the necessity of Educational Museum and neglect their duty and ignore their responsibility in this matter, the fate of the Indian students is to be lamented !

III

Purposes of Educational Museums.

1. **Utility.**—In this advanced age of the 20th century Museums should be opened on utilitarian principles. A rich man may collect some curiosities to satisfy his hobby. But the public money of the poor Indians should not be spent for such purposes. It may be allowable for England and U. S. A. to spend their super-abundance of wealth for the collection of articles of *antiquity*. But our money should be economically spent for the right sort of education of the people. I do not know of any nation of the world who got great benefit by archaeological collections. There is no harm to make such collections and exhibit them in ordinary sheds to be erected for the purpose. Those who have leisure and literary taste might write historical sketches from such collections.

2. **Zoology.**—There are more than 300,000 species of animals in the world. If they are collected and preserved in good buildings, it might require buildings 10 times bigger than the building of the “Indian Museum.” If Rs. 500 are spent for collecting photos or photo-prints of well-known animals, pictures of more animals can be collected than the animals which are generally preserved in the Museums or Zoos of India. At first edible animals or their models should

be collected. Secondly, specimens of such animals or their products should be collected which are used in arts and manufactures. Pictures of extinct animals or deep-sea animals should be shown to show the wonders of the animal kingdom.

3. Geology.—At first such geological collections should be made which are used in arts and manufactures ; or any way utilised by man. For elementary study of geology, collections should be made according to elementary books on the subject.

4. Fine Arts.—In an Educational Museum of India only small specimens of paintings, sculptures, workmanship on metals, stones, wood, cloth, etc. can be preserved.

5. Coins and Medals.—A big Museum with a big income can collect and preserve a large number of old coins and medals, but an Educational Museum can only collect some such coins and exhibit pictures or imitations of valuable Gold or Silver Coins, old or new, of different countries.

6. Anthropology.—Photographs should be taken from the anthropological collections of Indian and foreign Museums and their photoprints should be exhibited in the Educational Museums of India. Illustrated books on the Manners and Customs of the Peoples of the World are available at about Rs. 500/-.

7. Archæology.—An Educational Museum of India cannot be expected to collect such articles. It should exhibit their pictures, which are sufficient for the purpose of education.

8. Modern Inventions.—Old things and pictures, old literature and customs, old religions and old everything of barbarous or semi-civilized nations of ancient times have their charms ; but they have little utility on the onward march of nations. But in these times of numerous inventions, an Educational Museum should be equipped with those inventions. Good-bye to all such old things, which are only *curious*, but not *useful* ! On the forward march of mankind undue preference for them is nothing but obstacle and stumbling block on the pathway. More than 95 per cent. of mankind do not or should not waste their time and energy for studying or ruminating over those things of ancient times. They are practical men, who earn their livelihood and try to secure domestic happiness.

9. Necessity.—An Educational Museum as described herein, accompanied with lectures and explanations, is one of the most necessary adjuncts for the education of the teachers and students of schools, colleges and universities ; for the educated and uneducated persons,—males, females and children. The universities, colleges, schools, education departments, literary societies and the general public must combine to establish Educational Museums. There should be no anxiety for the costs of collection,—some interest and exertion of the teachers and students are sufficient. They might be collected in the rooms of schools and colleges ; or public halls. If about Rs. 5000/- are spent for such collections in a big city like Calcutta, Bombay or Lahore, and the students and public take

sufficient interest, you will find that in course of 5 years those collections will vastly expand by means of presents from the appreciating public and the manufacturers. These Museums will elevate and expand the views of the students and the public. Scientific inventions and industrial manufactures must be given preference to old antiquated articles, which are idolized by some persons of peculiar turn of mind. Modern scientific, industrial and hygienic inventions are *far more important* things, because without them we cannot live healthy life and prevent early death, and cannot secure the necessities and comforts of life. Bread-problem and health-problem are of paramount importance to the poor Indians;— other subjects are of secondary importance.

10. Necessary Adjuncts.—I believe that all educationists will admit that the following articles, namely, Books, Pictures and Appliances on Physical Culture (Rs. 200), Telescope (Rs. 300), Microscopes (Rs. 300), Movements of the Earth and Moon round the Sun (Rs. 100), Guide Books (Rs. 50, big Dictionaries and Books of Reference (Rs. 300), Books, Charts and Diagrams on Health and Hygiene (Rs. 200), Books and Pictures on Natural History (Rs. 250), Physical Appliances (at least Rs. 300), common Tools and Implements (Rs. 100), Magic Lantern with slides (Rs. 400), samples of Various Arts (Rs. 250), etc. are indispensably necessary for modern education. All Colleges cannot afford to buy them. An University can procure them, and lend them to different Colleges under it.

11. Want of Fund.—I do not think that there will be superfluous fund in the University, Corporation, or Education Department in this time of retrenchment. Let me consider the position of the Calcutta University. It has certain Endowments for teaching certain subjects. Those trust-funds should be utilised for the specific purposes. For the purposes of higher studies in Physics, Chemistry, Botany, Physiology, Geology, Experimental Psychology and Zoology, Laboratories and Collections of Specimens as well as Lecturers are indispensably necessary. But let the graduates in B. A., themselves study higher courses in English, Sanskrit, Pali, Arabic, Persian, Indian Vernaculars, Philosophy, History, Political Economy, Pure Mathematics, and Law, and appear at such examinations and get degrees according to their merits. The enormous cost of lectures can thus be saved and utilised in imparting education in more useful subjects, such as agriculture, arts and manufactures, textiles, ceramics, dairy, leather industry, practical chemistry, fishery, technical schools and colleges, etc. etc. In this manner there will be free scope for giving encouragement to deserving students with least expense. This is the way for making educational reform which is the crying necessity of the present time. This is my humble suggestion. Of course in Law Classes, and also other classes, some Professors for reference should be maintained. For the natural growth of a tree, good seed is of prime importance. The innate capacity and intelligence of the student can be compared to the seed. The good

soil, and sufficient air, light and water are necessary for the exuberant growth of the tree. Similarly, college education upto B.A. standard, family and financial circumstances, bodily strength and mental calibre and bestowing of M. A. or higher degrees to home students are needed for the development of the inner faculties of the students. I think this is the natural process of development. Every facility and encouragement should be given to the independent students who have a mind to get higher degrees above B.A.

The United Kingdom has 45 Universities and engages 4000 Professors. In the Oxford University alone, 72 subjects are taught. Let the British Government or the British people with enormous funds at their command, maintain so many Universities and Professors according to their need. Poor India should not try to vie with them with a poor fund at its command. We should reform and re-reform our general education system and university system according to our means, needs, and circumstances.

12. Cinemas and Talkies.—“It is an undeniable fact that at the present day the cinema exerts a profound influence over the people throughout the world, for good or for evil. There are in the world today 61,994 public halls for cinematographic performances of which 36,955 are wired for sound. We have in India itself 685 installations of which 220 relate to sound films. England comes third in the list with 4950, of which 4228 are sound films.”—*Health, Aug. 33.*

IV

Existing Museums of India are different from proposed Educational Museums.

1. Without learning the alphabet of a language, no one can read a book written in that language. Similarly, without acquiring a rudimentary knowledge of any science, one cannot understand higher books of that science. He who does not know the simple rules of arithmetic, cannot study higher mathematics. In order to impart elementary knowledge of Chemistry, Zoology, Geology, Mineralogy, Physiology, Astronomy, Botany, etc. experts on those subjects have compiled primers, the sale of which is far greater than the sale of higher treatises on those subjects. For example, the English Translation of a French book named "First Year of Scientific Knowledge" was sold in 70 or 80 thousands of copies. The original first edition of the French book had a sale of 1,000,000 copies. The English edition, a handy small book, contains 550 illustrations. The "Indian Museum" of Calcutta has published a number of technical books which the educated public of India do not take advantage of, and for the

general Indian students they are like Greek or Hebrew books. The Calcutta University has published some books, which are not for general students. Thousands of school-students should be provided with elementary books on technical subjects. It is much to be regretted that 17 or 18 Universities of India and one dozen Departments of Public Instruction, the Government Museums and hundreds of educationists, who have written school-books and various books on other subjects, have not thought it necessary to publish many such primary books as mentioned above in the course of the last 50 years. I greatly deplore this absolute lethargy and utter disregard for the education of the young students of India in this line. Yet, there is time to rectify their mistake.

2. A Science Primer generally gives a list of articles which are necessary to illustrate the lessons. For example, Roscoe's "Chemistry Primer" gives such a list of articles, the total price of which is Rs. 100/- to Rs. 150/-. The Museum lecturer or guide should occasionally explain to the students of those schools of Calcutta, which are unable to provide those articles or which cannot engage teachers of chemistry, the lessons of the Primer with illustrations. Similarly, the Museum can keep 3 or 4 sets of geological collections which are mentioned in a Primer of Geology; and lend them to 3 or 4 schools for showing them to the students and explaining them with the help of the Primer. This is the systematic mode of teaching. It would be unsystematic to explain at random

the properties of some geological specimens out of thousands of specimens kept in a big Museum. Zoology also should be taught in this manner. A student should at first have a cursory knowledge of some animals by means of pictures ; then, he should be imparted the knowledge of the Classification of the Animal Kingdom ; and lastly he should be shown the animals in a Museum and explained to him their characteristics. I would like to know, if there is a better method of teaching than the one mentioned above.

3. I paid visits to the Museums of Calcutta, Madras, Bombay, Lucknow and Jeypore, but did not find any guide in any of them to explain the particulars of the exhibits to the visitors. Mere dumb-show cannot educate the people, and thus the object of the Museum is well-nigh frustrated. I have visited the "Indian Museum" of Calcutta several times in the course of the last 60 years ; and can safely pronounce that the curiosity of the visitors is satisfied after having a look at the strange or curious things. The fate of school-boys is not better. The authorities do not think it their duty to impart at least some knowledge to the visitors. They are spending annually about Rs. 40000/- of public money for the establishment and collections, but are doing very little good to the public. If the doors of the Museum be closed to the public, there will be little loss to them, only the curiosity-mongers will feel disappointment. The Museum authorities should spend half the amount of grant for the upkeep of the Museum and spend the other half for a staff of

educated guides for regularly delivering popular lectures on *useful* subjects (but not *ornamental* subjects), for buying *useful* articles, making cinema and talkie shows on useful subjects, publishing cheap popular hand-books and establishing a popular library of useful books relating to the Museum-exhibits.

4. Let some lecturers satisfy their desire to deliver lectures from time to time on fine arts, archaeology, antiquity and such other subjects ; but popular lectures on health, diet, exercise, maternity, child-welfare, village-reconstruction, applied sciences, agriculture, mechanics, etc. should be by selection daily given with magic lantern illustrations, or cinemas or talkies, as convenient, to the people and the students, charging nominal fees, if necessary. I hope I need not give out reasons for this innovation, because I believe that no educated man, who has a desire to teach the public and specially the students, will differ from me in this respect. We should always remember that arts, sciences, discoveries, inventions and industries of England, Germany, United States and Japan have raised the status of those countries. We poor Indians should judiciously spend our bodily energy, mental power and scanty money at our disposal on useful things and request the Government to spend money usefully. In this enlightened 20th century, the educated men of India should try to educate the young students in such a manner that they might become fit to earn their livelihood by means of industrial arts and manufactures.

5. The conductors of a Provincial Museum can not

only educate the visitors on useful subjects, but also can send out lecturers to different parts of the Province to educate the inhabitants and thus do immense good, instead of spending public money for showing the grandeur of grand collections. Enough money of the Indians has been spent in the last 40 or 50 years for "ornamental" collections ; now there should be a diversion from such activities, which should be diverted to serve better and more laudable purposes.

6. At present, the proposed Educational Museum can be made a part and parcel of the "Indian Museum" of Calcutta and should be temporarily located at the two halls on the ground floor, one at the South-west corner in which the carved red sandstone pillars and cross-bars are fixed and the "Gupta Gallery" and the Eastern upper and lower Verandahs. There will be some obstruction on account of the stony walls or sculptures, but at present there is no help. As the object of the Museum is to collect and show them to the visitors, or students, and not to idolize them, it would be better, to locate them in a Hall which should be erected in front of the Museum Buildings on the Maidan, in such a manner that it can be extended in future, for making room for additional collections of this nature. From that Hall the present big stone images can be removed, to make room for more interesting and useful things. At present not even one in a thousand takes interest in these things. The Calcutta University, the premier University of India, the Education Department of Bengal and the Corpo-

ration of Calcutta should jointly take lead in the matter. I have observed that in the last 40 years several useful institutions were established in Calcutta by the indefatigable and continuous exertions of single persons for a number of years. For example, the "Saradeswari Asram" was started by an old *sanyasin* lady since 40 years and now it is located in a building erected at a cost of about Rs. 55000/-. It teaches 250 girls without any fees and has a reserve fund of Rs. 10000/- "Calcutta Orphanage" was established by a single person without any means ; it has its own building and a reserve fund. "Calcutta Blind School" was started by a poor Bengali Christian. Now it is located at Behala in a spacious building of its own and has a reserve fund over one lac. Similar is the history of the "Calcutta Deaf and Dumb School." "Aturasram (Refuge)" was founded by a poor Bengali Christian. It has its own building at Bow Bazar Street worth two lacs of rupees. It would be a matter of surprise and sorrow, that an Educational Museum cannot be established at Calcutta with so many facilities at its back as pointed out above.

V

Basis, Scope and Classification.

1. Basis or Principle of Collection.

It is necessary to give some idea of the basis or principle on which collections of articles are to be made. If that guiding principle be not adopted from the very beginning, the proposed Museum might unnecessarily expand in such gigantic proportions, that in a few years it will become unmanageable. Rare, curious and very interesting articles may have a place in the Museum; but ordinary articles, which have little educative value, should have no place in it, although they are presented. The above principle is explained by the following examples :—

(a) In order to give an idea of ' tea-cup and saucer', one set might be kept in the Museum. If we keep ' tea-cups and saucers ' of different metals, materials, shapes, sizes, designs, etc. they will unnecessarily occupy a large space, which could be utilized for other important exhibits.

(b) Similarly, to explain some mechanical movements, two or three models can be kept. But in this kind of Museum, 400 or 500 models of different mechanical movements should not be kept; although pictures of such movements might be exhibited, which will occupy only a few pages.

(c) Photos, coloured photos or photo-prints of various animals should be exhibited. In this manner we can keep pictures of a *larger number of animals* than what are preserved in the "Indian Museum" at a far less cost, say, 1 or 2 per cent. cost. Those who like to examine the animals as they actually are, might visit the "Indian Museum" or other Provincial Museums, or the "Zoological Gardens."

2. Scope of the Museum.

(1) To collect objects of everyday life and articles of common use, either in original or their pictures, models, miniatures, samples, cuttings, or imitations; to arrange them in some natural mode of classification; and properly exhibit them.

(2) To collect and show objects of the animal, vegetable and mineral kingdoms or their pictures, etc., in various departments of human knowledge, and in all sorts of arts and manufactures.

(3) To collect and show interesting, wonderful and uncommon objects of nature and arts in original, or their pictures, etc.

3. Classification of Exhibits.

1. Cereals, Grains, Pulse.
2. Vegetables, Fruits, Roots, Bulbs, Greens, used as food.
 - (a) Miscellaneous Foods,
 - (b) Grocery, Bakery, Confectionery, etc.
3. Spices and Condiments.

4. Medicines, Drugs, Stimulants, Narcotics, and Intoxicants.

(a) Medical Instruments and Appliances.

(b) Introductory Books on Various Systems of Treatment, such as, Homeopathy, Chromopathy, Hydropathy, Electro-homeopathy, Naturopathy, etc.

(c) Hygiene and Health,—Books and Appliances.

5. Dresses:—Head-dress, Drapery, Millinery, Hosiery, Shoes, Clothing, Toilets.

6. Ornaments and Jewels.

7. Utensils (household).

8. Household and Office furniture and articles ; Building materials.

9. Houses, Architecture, Decorations, Sculpture.

10. Vehicles,—on Land, Water and Air.

11. Stationery:—

(a) Papers and Printings; also Writing, Drawing and Teaching Materials.

(b) Photography, Lithography, Drawings, Paintings, Scenery, Pictures.

(c) Stamps, Coins, Antiquity and Archaeology.

12. Sports, Pastimes, Amusements, Toys, Games, Musical Instruments.

13. Geology :—Minerals, Metals, Earths, Stones, Fossils, etc.

14. Botany :—Trees, Plants, Leaves, Flowers, Timber, Roots, Barks, Fruits, Seeds, etc.

15. (a) Animals (Zoology):—Insects, Fishes, Reptiles, Snakes, Birds, Mammals, etc.

(b) Animal products :—Hide, leather, hairs, horns, wool, silk, etc.

16. Chemicals, Crystals, Acids, Alkalies, Gums, Resins, Salts.

17. Tools, Implements, Machines, Weapons :—

Relating to (a) Workshop (b) Gardening
(c) Agriculture (d) Dairy (e) Spinning (f) Weaving
(g) Navigation (h) Railways.

18. Arts and Manufactures :—

(a) Textiles:—Cotton fabrics, Woollen fabrics, Silk fabrics ; Jute, Hemp, Flax and other fabrics ; Fibres, Embroidery, Lace, Prints, Yarns, Raw materials of cotton, wool, silk, etc.

(b) Hardwares, Metalwares, Carvings, Inlaid Wares, Electroplated and Enamel Wares, Cutlery, Pottery, Porcelain, Glass, Lamps, Woodwork, Stonewares, Ivory, Horn and Leather-work, Lac and Lacquer Wares, Fancy-work, Brushes, Rubber Productions, etc.

(c) Dyes, Paints, Colours, Varnishes, Polishes, Dyeing and Printing of Textiles.

(d) Vegetable, Animal and Mineral Oils.

19. (a) Physics:—Statics, Hydrostatics, Dynamics, Sound, Light, Heat, Magnetism, Electricity.

(b) Mechanics and Models of Machines.

20. Geography, Physiography, Astronomy, Natural Phenomena.

21. Various Sciences:—

- (a) Pathology and Physiology (b) Geometry
- (c) Surveying (d) Meteorology (e) Physiognomy
- (f) Astrology (g) Palmistry (h) Phrenology
- (i) Mysterious Sciences, such as, Mesmerism, Spiritualism, Hypnotism, Ocultism, Yoga.

22. School Exhibits:—

- (a) Primary, Secondary, High School, Technical School and College.
- (b) Girls' School and College.

23. Literary Collections.

24. Collections for Infant Classes ; Kindergarten.

- 25. (a) Ethnology, (b) Famous Persons, (c) Customs of Mankind, (d) Various Professions, (e) Antiquity, (f) Archaeology.

- 26. Reports, Rules and Literature of Indian and Foreign Schools, Colleges, Universities, Societies, Museums, and Exhibitions.

- 27. Guide Books and Maps of Important Railways and Places ; Directories.

28. Books of Reference ; Catalogues.

- 29. Handwritings and Signatures of Famous Persons.

- 30. (a) Social and Commercial Forms, (b) Deeds and Documents.

- 31. Views of Famous Places, and Scenes of Important Events.

- 32. Interesting Information and Statistics.

VI

APPENDICES.

1

Some Foreign & Indian Museums.

Museums of London.

1. British Museum established in 1753, grant in 1928 was £280,887. "It is so vast that days are required to gain an idea of the wonders it contains ; and it would take a life-time to become acquainted with them all." The catalogue of books kept there consists of more than 2000 volumes.
2. London Museum.
3. Natural History Museum ; grant in 1928 was £97,477.
4. Science Museum, established in 1850 .
5. Victoria and Albert Museum established in 1852.
6. Imperial War Museum.
7. National Gallery of British Art, called Tate Gallery, opened in 1897.
8. Museum of Anatomy and Pathology of the Royal College of Surgeons.
9. National Portrait Gallery, cost of building £ 80,000 offered by Mr. W. H. Alexander in 1888.
10. Wallace Collection opened in 1900.

Besides these there are several other small Museums.

Two Museums of U.S.A.

(a) Field Columbian Museum at Chicago. Marshall Field bequeathed 8,000,000 Dollars about Rs. 25,000,000.

(b) Carnegie Museum, Pennsylvania, cost of the building 8,000,000 Dollars (about Rs. 25,000,000.) In it the Natural History collections are over 1,500,000.

I have given the above list to show that the rich and advanced nations appreciate the importance of Museums and liberally spend money on them. Poor India cannot compete with them. It should spend its money judiciously according to its means and needs, so that we can derive the greatest benefit possible with the least expense. The spirit of show and pomp should be set aside, and the practical side should always be kept in view.

Some Museums of India.

1. Indian Museum, founded in Calcutta in 1813.
2. Government Museum of Madras.
3. Prince of Wales Museum of Bombay.
4. Lahore Museum established in 1864.
5. Jeypore Museum established in 1881.
6. Baroda Museum.
7. Lucknow Museum.
8. Patna Museum.
9. Dacca Museum.
10. Nagpore Museum.
11. Quetta Museum.
12. Dehra Doon Museum of Forest Products.

The public can derive much benefit from these Museums, if Guides are employed to explain the objects ; secondly, if a Branch of it be established separately for the sole purpose of education ; thirdly, if small Guide-books on the different branches of collections be published. A Museum Committee should be formed for publishing Elementary Popular Books on the most important subjects regarding the collections of Museums.

2

How the "Indian Museum" can help.

The "Indian Museum" of Calcutta can help an Educational Museum of Bengal and other Provinces by presenting the following exhibits ;—

1. Out of 300,000 specimens, 100 or 200 important specimens.
2. Out of 21,000 rock specimens 100 or 200 specimens.
3. Out of meteorite collections, one dozen might serve the purpose.
4. Out of 27,000 vertebrate fossils, 100 will do.
5. Some photos or some originals of important animals, either stuffed or preserved.
6. Specimens of grains.

3

Ignorance About Common Things.

I entertain a belief that in India not only undergraduates, but even a large number of graduates, have little knowledge of common things, far less their properties, uses and other particulars. Whether my belief is based on fact or not, can be proved by a simple test. Gather 10 Matrics, 10 Intermediates, 10 B.A.'s. and 10 M.A.'s ; show them certain articles and ask them to write their names, properties, uses and other particulars, and see how many of them can give correct answers. I am giving below a list of some such things :—

- (a) Common varieties of rice.
- (b) Common edible fruits and vegetables of India.
- (c) Common medicinal herbs.
- (d) Evil effects of intoxicating drinks and drugs.
- (e) Common medical appliances.
- (f) Ordinary medicines.
- (g) Photos, Photo-prints, Drawings, Lithos, Chromolithos, Paintings of different kinds.
- (h) Tin, tin sheets, galvanized sheets ; compositions of brass, bell-metal, gun-metal, etc.
- (i) Different kinds of textile fabrics.
- (j) Fibres of India, such as, jute, flax, hemp, agate, rheia, wool, etc.
- (k) Cast iron, wrought iron, steel, cast steel.
- (l) Names and shapes of Wrought Iron things used in buildings, railways, etc., such as,

angle iron, 'Tee iron, flat iron, square bar, round iron, half-round iron, joist, railway rail, etc., sections of them are shown below :—



- (m) Names, descriptions and uses of household iron and brass fittings.
- (n) Common tools and implements.
- (o) Common machines used in agriculture and dairy, oil presses, mining machinery, etc.
- (p) Painting, varnishing, polishing, enamelling, japaning, electroplating.
- (q) Common wheels, pulleys, their kinds and uses.
- (r) Common insects, fishes, reptiles, snakes, birds, mammals, invertibrates, ruminates, crustacea.
- (s) Varieties of earths and stones and their uses, such as, Sand-stone, Slate, Marble, Agate, Quartz, Limestone, Chalk, Flint, Granite, Gypsum, Pumice, Soap-stone, etc.
- (t) Tallow, lard, fat ; or hide, skin, leather.
- (u) Coal, charcoal, coke (hard & soft) and their uses.
- (v) Reflected or refracted rays.
- (w) Colours of ruby, sapphire, emerald, topaz, diamond, cat's-eye, etc.
- (x) Causes of the different lengths of days and nights at different latitudes, with explanation.
- (y) Names of 6 kinds of taste.
- (z) Musical sounds, such as, sonorous, rythmical, melodious, concordant, resonant.

- (za) How one can save himself from the injurious or deadly shocks of electric wires by means of non-conducting materials ? List of conductors and non-conductors.
- (zb) Meanings and examples of sterilized, pasteurised, deodorised, oxydised, nentralised articles.
- (zc) Distinctions between tasar, garad, matka, bapta, endi, muga, shawl, alwan, merino, alpaca, etc.
- (zd) Household electric fittings.

It is a pity that the memory of students is taxed with unnecessary facts of ancient and modern histories, and many other similar things, although they are ignorant about ordinary mundane things of daily use. If my conjecture be proved true by the test, it behoves the Education Departments and Universities to take measures to dispel the darkness of ignorance with the light of knowledge.

4

Prince of Wales Museum of Western India.

Let me briefly express some of my views with regard to the Prince of Wales Museum of Western India located at Bombay. In its General Guide to the Natural History Section, published in 1930, page 28, I find under the heading "The purpose for which Museums exist", "The first purpose of a natural History Museum is Preservation and Utilization. We collect Natural History specimens to acquire and increase our knowledge of the animals, plants and

minerals of this country. We preserve them for the future as a record of Life as it exists to-day". This is wholly true as regards Natural History Museums ; but *partially* true as regards more important and useful Educational Museum of a general nature. I request the Trustees of the "Prince of Wales Museum" to consider the scheme of this book and spend about Rs. 200,000 in their hands for establishing an Educational Section of the Museum and utilize half the portion of the grant of Rs. 25,000 from the Government and also half the portion of the grant of Rs. 25,000 from the Municipality ; and thus confer a real boon to the citizens of Bombay and its environments. In the matter of Education, the value of Natural History is only about 5 per cent. in comparison to the value of general education by means of Museum.

5

Objections Against Novel Proposals.

Whenever a novel proposal is held before the public, they raise all sorts of imaginary objections. This is not all, men of science who discovered scientific truths, were persecuted by governments or kings. Even such an august and intelligent body as the British Parliament at first raised great objections against the introduction of railways in England ; but the indefatigable George Stephenson, the inventor of locomotive engine, induced the Parliament to accord sanction to his proposal. My modest proposal is very simple and

practicable. Educational Museums can easily be established in the cities of Calcutta, Bombay, Madras etc. in course of six months only, if the Museum authorities realise their importance as against the collection of less important but gaudy things. The Indian Museum of Calcutta should allot for the present the upper and lower Eastern Verandahs for its location. But it is very probable that they will resist most,—especially the Government Officials and the Museum employees. The picked educated men of the Senates and Syndicates of the Universities may not offer resistance, but they might remain dormant. If my cry is lost in the wilderness of apathy, on account of my insignificant position in society, I firmly believe that in due time a great reformer of education will stand forward pre-eminent and will overcome common objections against desired reformation with the force of his reason and argument. His mighty voice will drown these feeble murmurings. Although I am a man of 74 years, I am earnestly and strongly advocating my cause, because my proposal is based on secure foundation ; and I am unable to imagine a better plan for the practical education of the students in rudimentary knowledge. If anyone has any reasonable objections, I request him to come forward and let me know them, so that I might have opportunity to try to prove the unreasonableness of such objections.

6

Mistaken Idea About Costs.

People have generally a mistaken idea about the costs of exhibits of the proposed Museum. They think that without a gaudy show, there can be no Museum at all. This idea might be true in the case of a big showy Museum, which sets little value to the Education of the people. When things are collected in Schools and Colleges for object-lessons, there is no show. The proposed Museum will be nothing more than a bigger collection of such articles in larger varieties, which individual Schools and Colleges cannot afford to collect. An experienced Curator of a big Museum after reading the list of exhibits of an Educational Museum made a remark to me that it would cost at least Rs. 500,000 for establishing such a Museum. But I explained to him that in order to show valuable shawls, kin-khawbs, etc. big glasses worth Rs. 200/- each might be necessary, and several thousands of rupees will be required to buy the valuable articles ; but for an Educational Museum according to my scheme only Rs. 50/- to Rs. 100/- will be needed to collect about 200 kinds of textile fabrics of different materials. Similarly, there are some 200 varieties of art-manufactures of India. It would cost Rs. 1000/- at the most to procure them,—one or two samples of them are wanted. Gradually, valuable samples will be forthcoming as presents

in course of a year or two. There might be 100 principal varieties of drawings and paintings, for example, pencil drawing, ink sketches, etching, pastal drawing, free-hand-drawing, sauce-painting, water-painting, oil-painting, etc. One or two of each variety should be collected. The cost of one oil-painting may be Rs. 50/- to Rs. 5,000/-. As the object of this Museum is to give an idea of what an oil-painting is, Rs. 50/- to Rs. 100/- will serve the purpose. Sympathisers with the Museum can present some good oil-paintings worth Rs. 500/- to Rs. 1000/- each. Please note that it is not a gallery of oil-paintings ; not can it procure a beautiful or famous oil-painting worth Rs. 5,000/- or more.

7

Admission, Site, Management and Selected Articles.

Admission Tickets.—At present, and if found necessary and advisable for the future, there should be 1 anna tickets for admission to the Educational Museum. This system is necessary to prevent mobs to create inconvenience or disturbance to the students or enquirers. Yearly tickets should be sold to the public at Re. 1/- one per head ; children under 12 years at -/8/- ; teachers and college students can get them at -/8/- and school students at -/4/- For admission to the Magic Lantern lecture at -/2/-, and to the Cinemas and Talkies -/8/-, Re. 1/- and Rs. 2/- according to seats. Admission to lectures on Health, Science, Arts,

etc. should be free to students, and by -/- tickets to the public.

Site of the Museum.—At Calcutta the most suitable site is near the College Square, which is central part of the city proper and is also the educational centre. One big room of the Post-Graduate College building is suitable for making such collections at present. A building should be erected for the purpose on the open space to the West of the Science Laboratory of the Presidency College. The next suitable place is the "Indian Museum" building,—the upper and lower Eastern Verandas and lower Southern Hall of Statues,—the walls of the Hall can be utilized as well as the Verandah adjoining to it. Books and Picture Books can be placed in front of the Library of the Indian Museum.

Management.—The Managing Committee should consist of the Minister of Education as Patron, the Director of Public Instruction as President, Director of Public Health, a Member of the Syndicate, and a Trustee of the "Indian Museum" as 3 Vice-Presidents, 5 Professors of Colleges, 5 Head Masters of High Schools, 5 Ex-graduates of Science or Technical Colleges ; and 5 independent gentlemen nominated by Government, Corporation, Science Association, Teachers' Association and Medical Association. Prizes or Medals should be awarded to the students or outsiders who will collect necessary or useful articles. If a suitable house in a proper place can be secured, and about Rs. 5000/- be allotted for the present, and half a dozen paid workers

be engaged, the Museum can be opened in six months. I have the courage to fix the time-limit, because I know by actual experience how the necessary articles for such a Museum were collected. Of course it will take at least one year or two, for fully equipping it.

Selected Articles in the 3 Kingdoms of Natural History.

Minerals.—Ores of metals, metals and alloys ; such stones, earths and minerals which are used in making useful things.

Vegetables.—Edible fruits and vegetables, Medicinal herbs ; woods generally used in furniture, buildings, boats, carraiges, etc.

Animals.—Domestic animals, specially cows and goats of different kinds. Snakes (poisonous and non-poisonous), scorpions, centipedes, poisonous insects, birds and insects, and animals which are injurious to crops, etc.

Note.—Most of the collections are to be made with reference to their utility to mankind. Of course, strange and interesting articles will be collected to show the wonders of the 3 Kingdoms.

8

School Exhibits of England.

Let me inform the Directors of Public Instruction and Universities of different Provinces, that six or seven years ago an Exhibition of the productions of

the students of England was held at the Government Training School of Agra for 3 days. The Exhibition was opened by the Minister of Education, U.P., and was visited by the teachers and students, and the educated people of Agra and its environments. The collection was made in England in course of some months, by the Principal Mr. H. Tinker, M.T., of the School. They were very interesting things and the visitors were very much pleased. They are now kept with the Director of Public Instruction, U.P. I hope that he will lend the articles for show to the Directors and Universities of other Provinces. These School Exhibits are the practical demonstrations of the methods of education adopted in the Primary, Middle and High Schools and also Technical Schools of England. I am confident that the teachers or students of India never saw such things here. By seeing these things the range of vision of the Indian teachers and students will be expanded. The Exhibition of the productions of the Indian boys and girls also will be a great attraction and will give great impetus. I saw that hundreds of persons visited such school-exhibits at the big Exhibition of Allahabad by special -/- tickets. We should keep a permanent Exhibition of the School-exhibits in every educational centre of India. This is imperatively necessary.

9

Joint Effort of Schools, Colleges and Museums.

An individual College or School of India cannot procure many articles of educative value, and cannot employ teachers to teach their uses. But several Schools and Colleges can jointly do so. Although I have given a list of such articles elsewhere, I am tempted to give below a list of some selected articles which are imperatively necessary for a thorough education. (1) Orrery, (2) 2 or 3 Telescopes, (3) 2 or 3 Microscopes, (4) Magic Lantern with sets of slides, (5) Cinema with films and Talkies, (6) Models of Physiology, (7) Compass, (8) Electric appliances, (9) Models of Steam. Oil and Gas Engines, (10) Aeroplane Models, etc. I am sure that visitors will spend several days and hours in seeing a number of very interesting things in such a Museum. I am not writing this as an imaginative dreamer, but from actual experience. A Museum Committee should be appointed to investigate into the present and past workings of the Government Museums and also the Museums founded by Maharajas, and see how far the public and the students derived benefit from them. Number of visitors cannot be criterion for arriving at a conclusion ;—melas and fairs are visited by thousands for seeing *tamases* and buying and selling of articles.

10

Natural Phenomena.

I am giving below a list of principal Natural Phenomena to show that some of them can be actually seen and ideas of others can be given only by means of pictures, specially by photographs or photo-prints. I ask the educationists of India, in what Schools or Colleges or in what Museums of India, these pictures were collected ? They can be secured at a trifling cost with some labour. Few young men of India can go to the Niagra Falls, Sahara, Snowclad Himalaya, Dal Lake, Glacier, Volcano, etc. But they can have some idea of them by means of pictures, cinemas and talkies. Discovery of photography and cinemas, etc. should be taken advantage of in showing these Wonders of Nature.

Natural Phenomena or Wonders of Nature.

Mountain, Sand-storm, Sunrise, Meadow, Volcano, Crevasse, Midnight, Savanna or Savannah, Prairie, Rapid, Cliff, Pompas, Glacier, Whirlpool, Moor, Swamp, Oasis, Waterfall or Cataract, Morass, Desert, Iceberg, Bore, Moraine, Tableland or Plateau, Geyser, Hailstone, Mist, Silva or Sylva, Halo, Cyclone, Sunset, Snow, Grotto, Lagoon, Valley, Snowfall, Reef, Breaker, Ford, Sand-drift, Mirage, Earthquake, Ignis-atuus or Will-o-the-wisp, Sand-dune, Meteor, Gulf, Inlet, Pool, Creek, Isthmus, Lake, Gorge, Delta, Hill, Stormy sea, Brook, Estuary, Hillock, Calm Sea, Storm,

Coral-island, Beach, Peninsula, Creek, Dell, Fjord or Ejord, River, Cascade, Basin, Stratum, Tributary, Precipice, Bay, Island, Puna, Strait, Cape, Rainbow, Forest, Woodland, Channel, Aurora borealis, Glen, Frozen Waterfall, Mount, Avalanche, Submarine forest, Ocean, Promontory, Kinds of Clouds, Water-spout, Lightening flashes, Dale, Simoon, Cave, Steppe, Whirlwind, Ravine, etc.

11

Archaeology, Anthropology and Evil Habits and Customs.

1. **Archæology.**—Some educated persons have a great fancy for it, which is a knowledge of ancient art, customs, &c. As few persons are going to imitate them, such knowledge is not profitable. It is a good sign that only a few educated persons take active interest in it. If the amount of money, which is spent in India for acquiring such knowledge and making these collections, is utilised in imparting useful knowledge to the poor students and people of India, ten-fold benefit can be secured. This is my firm conviction. Goodbye to old statues and buildings ; mandirs and masjids ; earthen, stony or metallic utensils ; uncouth ornaments and dresses, &c. Such antiquated things are not serviceable in our present daily life. Pictures and short descriptions of some of them are quite sufficient for us. In their stead, we should collect more pictures, models or originals, and

descriptions and particulars of modern improved well-lighted, light, and beautiful buildings, nice sculptures, fancy ornaments and easily available glass, porcelain or enamelled wares and utensils, which even the emperors of old had not the good fortune to see or possess.

2. **Anthropology** is the natural history of man in its widest sense ; his evolution, the different races, &c. There are Chairs of Anthropology in the Universities of Oxford and Cambridge. Indian Universities need not copy them in this respect. We should keep some heavy, uncomfortable and insanitary ornaments and dresses of the aboriginal tribes, or foolish and ignorant village women of India, to generate in the mind of the rising generation a great dislike for them. Valuable time should not be lost in the study of these things. It is time to march in the race of other nations.

3. **Evil Habits and Customs.**—Charts, pictures and models should be exhibited regarding Child-marriage, Polygamy, Marriage Dowry, Horse-race Gambling, other Gamblings, Brothels, Prostitution, Usury, Obscenity, Smoking, Drinking ; Opium, Bhang and Ganja Habit ; Religious Fanaticism and Hatred ; Racial Animosity, Burial, Capital Punishment ; Drunkard's Life, Demon of Drink, &c ; very tight and high-heeled shoes of English women ; flesh-pressing brass anklets of Hindusthani women ; iron shoes of Chinese women, &c.

12

Curtailment of Superfluous Expenses.

1. As I have visited the Indian Museum of Calcutta several times, I suggested from time to time some measures for its improvement by making some necessary changes. But they were not carried out. The authorities are very slow in this matter. Every Museum of India should open an Educational Branch by curtailing the expenses of the main Museum in order to extend its utility, and radically change its modus operandi. The employees of the Museums of India cannot be expected to support the scheme of Educational Museums by curtailing half of the present expenses of the Museums, because in that case the services of half of the employees might be dispensed with. This fear is groundless, because they do not know that if my improved scheme be carried out, more hands than the present employees will be required. It might be necessary to reduce the present high pays. Elsewhere you will find a short description of what should be the future works of the Museums.

2. After reading my pleadings for assigning less importance to the collections of fine arts pictures and objects of antiquity, &c. of the Indian Museums, one might think that I have no taste or love for fine pictures, objects of antiquity, and specimens of zoology, botany and mineralogy. This is a wrong estimation of

my ideals. I admit that the Schools of Fine Arts are doing useful work and several persons are earning their livelihood by such studies. I also admit that rich persons and some persons who have special liking for such things, should devote their energies and money in studying or practising fine arts ; and that the Museums should judiciously spend public money on these things for imparting an elementary knowledge of them to the visitors. But at the same time let me express my conviction that under the present deplorable circumstances of India, the main objects of the Museums should be the collection of exhibits on the subjects of health, arts, manufactures, mechanics and popular sciences, and regularly delivering lectures on them.

3. Let me plead my case before such judges, who are slow to catch the real point at issue and who can not shake off antiquated notions, and who have no aptitude for introducing reforms in this line, by presenting before their mind one concrete picture of a hypothetical nature. The overwhelming superiority and importance of railways, steamers, telegraphs, etc., over the fine arts, archaeology and similar subjects can easily be gauged by the immense loss and inconvenience of the entire civilised countries if the former are closed for a week or even for a day ; but if the exhibition of fine arts, etc. are closed for a month, or even for a year, there will be no perceptible loss. From the above instance we should take this lesson, that the people should be educated in useful industries. It is fit for

the countries like England and U.S.A., which have super-abundance of wealth, facilities and enterprising men, to investigate into the Tomb of Tutenkhamen, to climb the top of the Everest and fly over the Arctic and Antarctic regions. According to the dictates of common sense and mature judgment, I am prompted to warn the educated Indians not to imitate these favoured nations by frittering away their energies in these unprofitable things, but they should reserve and utilize their energies to find out ways and means to solve the bread problem of India to a certain extent. They should try to emulate them in building industries and thus to improve national resources.

4. If a machine is shown to a person, who never saw it before and who had no knowledge of its parts or workings, he does not become wiser. Millions of Indians are daily travelling in the railway trains, but they never enquire how the engine is drawing the whole train of heavy carriages as a toy-cart. Unless the mechanism is explained to them, they will remain in the dark. Some villagers once remarked that an engine has horses within it or some superhuman diety gives force to the engine. I have given this example to prove that the dumb-shows of the Indian Museums are not the only means to educate the people;—explanations are absolutely necessary. If a man is once taught the workings of a machine, he feels some pleasure. That pleasure gives an impetus to his mind to make investigations into the workings of other machines. Thus you see the special need of explana-

tion. Explanation with illustrations awakens the dormant inquisitive faculty of the students. The modern mechanical, industrial, chemical, and electrical inventions must be exhibited to the students, in preference to the things of antiquity, to expand their vision and imagination. Sir J. C. Bose had good scientific knowledge in his career, so that he could apply it in making invention of his nice machines to prove that there is life in the hitherto-fore-so-called 'inanimate objects'. Similarly, Sir P. C. Roy made use of his genius in developing his "Bengal Chemical Works" and Professor Raman had the advantage of the laboratory of the "Indian Association for the Cultivation of Science" in his discovery of world-renowned theory of "Raman Effect".

13

Calcutta University Partially Admits the Necessity.

In the Calcutta University Calender of 1931, there is a rule that such schools will be recognized by the University for teaching the following four subjects as will provide certain things :—

1. Geography :—

(1) A Globe of about 14 inches.

(2) Museum of Typical Rocks, Products, Magic Lantern and Slides, &c.

2. Elementary Mechanics :—

Certain things which are necessary for illustration.

3. Elementary Hygiene :—

Different kinds of rice, dal, cereals, sugar, oil-producing substances, starches, antiseptics, minerals, insects, human organs, exercise appliances, some chemicals, etc.

4. Business Methods and Commercial Correspondence, Commercial Geography, &c. :—

This rule conclusively proves that without necessary objects and appliances, teaching will be defective and incomplete. Thus the University has *partially* recognized the importance of an Educational Museum. I intentionally italicise the word 'partially' to show that the University has not fully recognized the importance. Only a few stray schools have provided the requisities. The majority could not provide them, probably for want of fund, room or qualified teachers on those special subjects.

14

Rough Estimate of Contributions.

If 100 schools of Calcutta with its environments, and of Hooghly, Burdwan, and Presidency Division, &c., pay Rs. 50/- each ; and 45 colleges pay Rs. 200/- each ; and the students pay Re. 1/- each ; and college students pay Rs. 2/- each, once for all, without compulsion but willingly, a decent Educational Museum can be easily established with a sum of Rs. 10,000/- leaving a balance of about Rs. 10,000/- for maintenance. If the Education Department pay Rs. 5,000/-, the Calcutta University pay

Rs. 5,000/- and the Municipal Corporation of Calcutta pay Rs. 5,000/-, a small hall can be erected at present on the ground, West of the Presidency College, with a provision for extension. I can say with great confidence that after the opening of the Museum, the educated rich persons of Calcutta, or rather Bengal, will give a good amount of donations and presents of valuable articles, if the University, the Corporation and the Director of Public Instruction jointly take the lead ; and the public are convinced of its necessity and utility.

Contributions.	Rs.
45 Colleges at Rs. 200/- each	... 9000/-
90 Schools at Rs. 50/- each	... 4500/-
12 Colleges teaching Law, Medicine, and Engineering at Rs. 100/- each	... 1200/-
32 Schools of Birbhum at Rs. 25/-	... 800/-
49 Schools of Howrah at Rs. 25/-	... 1225/-
50 Schools of Hooghly do	... 1250/-
63 Schools of 24 Pargns. do	... 1575/-
225 Professors of 45 Arts & Science Colleges at Rs. 10/-	... 2250/-
60 Professors of 12 Technical, Medical and Law Colleges at Rs. 15/-	... 900/-
900 Teachers of 90 Schools of Calcutta average at Rs. 2/-	... 1800/-
2000 Teachers of about 200 Schools at Birbhum, Howrah, and Hooghly at Rs. 2/-	... 4000/-
Carried over ...	28500/-

Contributions.	Rs.
Brought forward	28500/-
5000 Students of Colleges at Rs. 2/-	10000/-
2000 Students of Law Colleges at Rs. 2/-	4000/-
Members of the Senate and Syndicate	1500/-
Students' Welfare Association	1000/-
Director of Public Instruction	5000/-
Corporation of Calcutta	5000/-
Calcutta University	5000/-
	<hr/>
	Rs. 60,000/-

Instead of erecting marble statues, each of which is worth several thousands of rupees, in memory of famous persons in the open ground for crows and pigeons to sit on the heads, and which are being spoiled by the rains and dust ;—a Memorial Hall in the Museum in his name can be erected and a bust or oil-painting and writings of the person can decorate the hall. The hall will reverberate with lectures on useful subjects with illustrations. This is the proper and economical method of utilising the money and of paying a fitting tribute to his memory.

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Rough Estimate of Costs.

40 Blank Collection Books of thick paper, demy or royal folio size at Rs. 6/- each ... Rs. 240/-

No. Contents of Collection Books.

1. Famous Persons of all Ages and Countries.
2. Temples, Churches, Tombs, Mosques, Mandirs, etc.

3. Calligraphy or Hand-writing in English, Bengali, Hindi, Urdu, and other Vernaculars.
4. Important Buildings of the World.
5. Sports and Pastimes.
6. Railways and Railway Carriages and their parts.
7. Various Paintings.
8. Drawings and Paintings of several varieties.
9. Water Vehicles, ancient and modern.
10. Land Vehicles, do. do.
11. Air Vehicles, do. do.
12. Puzzles and Curiosities in Numbers, Arithmetic, Literature, Pictures, Sciences, Names, Optical Illusions, etc.
13. Bridges, Manufactories and Bird's-eye Views.
14. Religious and Social Customs, old and new.
15. Cartoons, Caricatures, Punch, etc.
16. Various Professions.
17. Wonders of Nature or Natural Phenomena.
18. Health and Hygiene, Maternity and Child-welfare.
19. Scientific Illustrations.
20. Historical Scenes, Wonders of Art, etc.
21. Dresses of various Provinces of India and of other Countries.
22. Tools and Appliances, etc. used in Agriculture, Gardening and Dairy.
23. School Exhibits, *e.g.*, Handwriting, Composition, Arithmetic, History, Geography, Painting, Kindergarten, Science, Scrap-books, Decorations, etc.
24. Machines used in various Departments.
25. Tools and Implements.

26. Household and Office Furniture and Articles.
27. Building Materials and Fittings.
28. Household Utensils, Cooking and Sanitary Appliances.
29. Architecture, ancient and modern.
30. Literary Collections of curious nature, in English, Hindi, Urdu, Bengali, etc.
31. Old Paintings or their reproductions.
32. Interesting Information and useful Statistics.
33. Physiology, Anatomy and Pathology.
34. Scientific Apparatus.
35. Races of Mankind ; Ethnology.
36. Decorations.
37. Pictures of Various Arts.
38. Pictures of Antiquities.
39. Pictures of Coins, Seals, and Medals.
40. Ultimatum of Knowledge.

Nature of Collection Books.—In order to dispel wrong or curious notions regarding them, let me give a brief explanation. These books should be made of thick tough paper, folio demy or royal size, well-bound with leather or cloth, 2 to 5 quires in each book. In each book *selected* pictures should be pasted. Suppose the book is named “Famous Persons”. The persons can be classified, if necessary, thus ;—religious teachers, philanthropists, scientists, athletes, philosophers, kings, inventors, poets, statesmen, etc. In the book “Water Vehicles”, boats, sailing ships, steamers, torpedoes, etc. are to be posted. In the books called “School Exhibits”,

best (1) Hand-writings, (2) Essays, (3) Drawings, (4) Paintings, (5) Designs, (6) Nature study, e.g., Botanical Collections, etc. should be collected. Such School Exhibits can be collected from foreign countries also. From the above explanation one can form an idea of the importance and, at the same time, the cheapness of the collection. Until an Educational Museum is established, Schools or Colleges are the proper places for the location of these books. 50 such books will cost Rs. 400 to 500. If there is no space for 50 books begin with 25 books ; and watch the interest with which the students will see them. The cost of making such collections is trifling,—only the hobbies of students and their good taste are required. Even one book named "Hand-writings of Famous Persons" will attract hundreds or thousands of students and literary persons. Is there any person in India who does not like to have a glimpse at the hand-writings or their photo-prints of Chaitanya, Jayadeva, Rammohan Roy, Keshab Chandra, Vidyasagar, Rajendra Lala, Gandhi, Rabindra Nath, J. C. Bose, Dayanand, Sarojini, Shakespeare, Milton, Gladstone, Helen Keller, Edison, Newton, Abul Fazl, Aurangzeb, Victoria, etc. I need not enlarge this paragraph with further illustrations. An intelligent man can grasp my idea from the above description.

Objects.	Rs.
Mythological Pictures	25
Alphabets and Primers of Indian Dialects	10
Stamp Albums	50

Objects.	Rs.
Old M.S.S. in English, Bengali, Sanskrit, etc.	50
Pictures and Paintings ...	150
Certificates, Proclamations, Medals, etc. ...	25
Famous Journals of about 100 kinds ...	50
“Simplified Spelling” and “Esparanto” Books and also Books on Memory ...	15
Literature for the Blind and Deaf ...	10
Books and Pictures on Physical Culture ...	100
Horoscopes and <i>Rasichakras</i> and Nativities ...	15
Commercial Forms ...	5
Pictures of Wars ...	5
Primery Astronomical Books and Charts ...	25
Telescope, Microscopes and Stereoscopes ...	550
Globe, Sun, Moon and their Movements ...	100
Forms of Accounts ...	5
News Cuttings ...	5
Litho-printings and Photo-printings ...	5
Deeds and Documents ...	10
Samples of Paper, Letter-papers and Envelopes	5
Maps (Geographical and Commercial) ...	25
Historical Charts ...	10
Samples of Newspapers ...	15
Prospectus of Indian Schools, Colleges and Universities ...	40
Prospectus of Foreign Schools and Colleges ...	40
Reports of Societies of India ...	10
" " " of England ...	10
" " " of America ...	10
Guide Books—Indian and Foreign ...	125

Objects.		Rs.
Museum Literature	...	25
Samples of nice Hand-writings	...	10
Reports of Exhibitions	...	15
Miscellaneous Pictures and Charts	...	25
Exhibits of Indian and Foreign Schools	...	150
Charts and Diagrams on Health and Hygiene	...	200
Primery Books on Medicine	...	100
Books on First Aid and Scouting	...	25
Books and Diagrams on Music	...	15
Books on Antiquity and Archæology	...	50
Book, on Object Lessons, Temperance & Maternity	...	25
Railway Guides & Maps & Steamer Guides	...	10
Dictionaries and Books of Reference	...	250
Books and Pictures on Natural History	...	200
Elementary Books on Botany and Agriculture	...	50
Charts on Colors and Dying	...	5
Quotations and Diaries, etc.	...	5
Mysterious Sciences, such as, Astrology, Physiognomy, Phrenology, Ghosts, Palmistry, Yoga, <i>Shatkhakras</i> , Telepathy, Astral Plane, etc.	...	150
Scientific Recreations	...	20
Drawings (books & collections)	...	5
Books and Implements on Magic	...	20
Customs of the World (Books and Articles)	...	150
Physiological Charts	...	50
“Pictorial Education”	...	50
Toys (mechanical and scientific)	...	50
Geological Specimens	...	125
Kindergarten Articles	...	50

Objects.	Rs.
Common Drugs (specially indigenous)	25
Toilets	25
Coins (current and ancient)	125
Geometrical Models	25
Some Musical Instruments and their Pictures	25
Textile Fabrics of Cotton, Silk, Wool, Jute, etc.	50
Medical Appliances	125
Scientific Appliances (ordinary)	200
Fibres of different plants	5
Ornaments and their Pictures	25
Pictures of Weapons	15
Intra-uterine Life	15
Pictures and Models of Fruits, Flowers and Vegetables	25
Cereals, Grains, Pulses, Foods and Spices	50
Wrought Iron Shapes	10
Wood Joints	10
Precious Stones or their imitation	100
Products of the Sea	25
Butterflies	20
Imitations of Birds, etc. and Stuffed Animals	150
Skins, Horns, Hides, Leathers, etc.	50
Mechanical Powers and Physical Appliances	150
Hand Printing Press	50
Specimens of Printing Materials	25
Magnifying Glasses	50
Charts of Eugenics	15
Samples of Wood	25
Stationery	50

Objects.	Rs.
Tools and Implements	100
Disinfectants	5
Chemicals	100
Magic Lanterns and Slides	250
Knitting, Sewing, Embroidery and Lace	50
Samples of Various Arts	500
Rubber Productions	25
Weights and Measures	20
Weather Indicators	50
Building Materials	20
Paints, Varnishes, Polishes, etc.	20
Door and Window Fittings	25
Furniture for the Museum	1000
Brought forward ; 40 Collection Books	240
Total Rs. ...	7,200

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Works of the Indian Museum.

1. There should be different Museum Committees :—

(1) **Health Committee** under the charge of an able Health Officer for disseminating knowledge regarding health in Calcutta, and gradually in the other cities and ultimately villages of Bengal.

(a) **Sub-Committee on Temperance.**—Lectures with demonstrations and illustrations on the evils of alcoholic drinks, smoking *ganja*, *charas*, *chandu* and tobacco in all forms should be given. From the yearly Excise Revenue of Government of Rs. 25 crores, we can

roughly calculate that the people lose a large amount of about 75 crores of Rupees for the use of these abominable stuff ; and also spend a large amount on tobacco in all forms. The leaders of India are of opinion that about 80 crores of Rupees spent on foreign cloths is one of the greatest causes of the poverty of India. In my humble opinion this is the second cause, because we get something in the shape of cloths in exchange of 80 crores,—therefore roughly speaking the people lose about 40 crores. But the loss of the people on intoxicants is irreparable ; in addition to ruining of health and families. If at least one crore of rupees be spent for disseminating the knowledge of the evils of intoxicants, it is the cheapest bargain. It took about 50 years for temperance reformers of U. S. A. to prohibit the sale of alcoholic drinks. The history of the struggle against this 'Devil of Drink' is very interesting literature.

(b) **Diet Sub-Committee**, for teaching suitable diet for the Indians, constituents and vitamins of foods, adulterated articles, etc.

(c) **Drug Sub-Committee**, for teaching common indigenous drugs and their properties ; some foreign drugs ; common medical appliances, etc.

(d) **Physical Culture Sub-Committee** for collecting apparatus for exercise ; photos, charts, etc.

(e) **Maternity & Childwelfare Sub-Committee** for the spread of knowledge about child-birth.

(2) **Entertainment Committee** consisting of the following Sub-Committees ;

- (a) Plays and Pastimes.
- (b) Gramophones, Loud-speakers, Radiophones, Cinemas, Talkies, Magic Lanterns, Projectors of opaque pictures, Microscopes, Telescope, etc.
- (c) Singing, dancing, musical bands and concerts; magic, ventriloquism, etc.

(3) **Committee of Scientific Teaching with Experiments or Illustrations.**

- (a) Physical Science. (b) Chemical Science.
- (c) Botany. (d) Geology. (e) Mineralogy. (f) Antiquity.
- (g) Anthropology. (h) Archaeology. (i) Other classes of Exhibits in the Educational Museum.

(4) **Committee of the parent 'Indian Museum'** with a staff for the general upkeep of the Museum.

(5) **Committee for Library and Publication of Books, Charts and Photos.**

(6) **Committee for Arts and Manufactures.**—This Committee shall have to study some Technical Books and keep samples of raw materials with which various Arts and Manufactures can be made. They will act as Information Bureau. They shall have to keep and study some elementary technical books and a list of higher technical books. At Calcutta such books can be consulted by the Committee and the students at the "Government Commercial Library."

Other Committees might be necessary as the Museum will expand and its scope will be extended. The present number of employees at the Museum shall have to be increased, when the usefulness of such Museum will be felt by the people and the Government.

Final Appeal.

1. In the 19th century there were so many discoveries and inventions in the domain of Arts, Industries and Science, as were not discovered or invented in the preceding eighteen centuries ; and the important and useful discoveries and inventions of the past 32 years of the 20th century can favourably compare with those of the 19th century. But it is a matter of great regret that the Museums of India are slowly trodding on the antiquated path and spending thousands of rupees on archaeological researches of very little importance to the people. This deplorable state of the Museums must end now ; and a new era of advanced system of Museum Education should dawn in India. Now I stand before the Government Officials, Education Departments, Indian Princes and the educated public with a strong appeal for a thorough and radical change of policy with regard to the Museums of India : and request them to consider my proposal for the establishment of Educational Museums on the lines indicated in these pages, without any prejudice or predilection towards old ideas and idiosyncrasies. If they considerably curb their present expenses made towards the shows of exhibits of little utility to the present generation ; with that saving they can increase the utility of the Museums fourfold ;

and accomplish more useful work in 25 years than what was done in the last 100 years.

2. The different branches and phases of Education cover such a vast field, that hundreds of books of this size are insufficient to describe, explain and examine them in all of their bearings ; and then to suggest methods for a thorough reformation. I have dwelt with only one branch of education of the students of India,—which is nothing but 'Education by Illustration'. If I have discharged my duty in this line rightly and faithfully, let the educated public consider my proposals with an unprejudiced mind and take up measures, as soon as possible, for a radical reformation of the present defective system and for the introduction of an improved system. Let the Press help me by criticising or approving my proposals, as the case may be. It will be a heavy and tedious task to fight against long-cherished preconceived notions regarding present defective museum education. As I am an inhabitant of Calcutta and am acquainted with some facts and conditions of imparting education in this city, I have given more space in this book in dealing with them. But my suggestions and observations should be judged and acted upon by the educated people of other cities according to the facts and conditions prevailing there, *mutatis mutandis*.

3. If we wish that the Indian nation would rise like other nations, then the sure and certain means will be to educate the children of the soil in various arts, sciences and industries. Let all schools impart

general education on useful objects to the young students ; and let the older students use tools and implements and learn to work machines. More Technical Schools and Colleges should be opened throughout India. If the existing Colleges and Universities have not sufficient funds for this great purpose, let them close M.A. Classes, Law Classes and other higher Studies ; and devote these savings for opening Scientific, Mechanical and Industrial Classes. By this suggestion I do not at all mean that doors to higher degrees should be closed. My object is to stop coaching system. Let the B.A. graduates develop their faculties by home-study. They should be given every opportunity and encouragement to study the different subjects of M.A. and Law Classes at home and secure M.A., B.L. and other higher degrees at University Examinations. I am prompted by my reason and common sense to lay this proposal before the educated public for their consideration, and passing judgment and taking up prompt action in this matter. One of the very simple and sure methods of encouraging higher studies is to give scholarships or lump sums of money to those who will obtain higher academical degrees. Universities, Education Departments, Departments of Industries and Museum Authorities should announce that large sums of money will be given as prizes or monthly stipends to the successful graduates, or even to non-graduates who will make new discoveries in useful arts and manufactures, or who will actually build up Industries.

4. The Primary Department of the [Educational Museum will encourage young students in gaining general knowledge ; the Secondary Department will acquaint older students with the workings of machines and processes of industrial arts and manufactures ; and the Higher Department will implant scientific knowledge of technical subjects in the mind of graduates or even capable non-graduates, so that they might act as superintendents or heads of factories or manufactories ; or they may be fit for new discoveries or inventions. Such are the benefits of Educational Museums, which will gradually effect a thorough change of the present educational policy.

Views regarding Educational Museum.

Viswabharati,
Santiniketan, Bengal.
11th October, 1931.

Dear Sir,

I have read your paper—"Educational Museums at the Educational Centres of India" with great interest and want to convey to you my full sympathy with the project outlined therein. I believe in the possibility of establishing such museums in the Educational Centres of our country and feel sure that under efficient direction they can be turned into attractive and eminently useful organizations for the cultural uplift of our people. * * * With kind regards,

Yours sincerely,
Rabindra Nath Tagore.

82/3 Cornwallis Street
Calcutta, the 1st June, 1931.

Dear Sir,

I hope your scheme will one day meet with approval of those educated men who agree with your views.

Yours truly,
Upendra Nath Brahmachari, M.D.
Member of Syndicate, Calcutta University.

I hail the idea of your starting an Educational Museum in Calcutta with pleasure and it would indeed be a useful Institution if such a one could be established, everything depends on the finance. I shall be glad to know how far the proposed scheme has progressed.

I have, etc.

(Miss) H. Bose, M.A.

23rd July, 1927.

Offg. Inspectress of Schools,
Presidency & Burdwan Division.

82/3 Cornwallis Street,
Calcutta, 8th November, 1930.

Dear Sir,

Many thanks for the copy of your pamphlet about your Museum scheme which I read with much interest. The success of your scheme depends upon financial support from the public. * *

Yours truly,
Upendra Nath Brahmachari, M.D.

The Bengal Social Service League.
1/6 Raja Dinendra Street,
Calcutta, 20-3-1931.

Dear Mr. Basak,

Fancy ! your asking me if I am not yet convinced that an Educational Museum should be opened in Calcutta, me, who has already opened one within the limited resources at his disposal. * * * With kind regards.

Yours sincerely,
D. N. Maitra,
Secretary.

2 Wellesley Square,
Calcutta, the 10th April, 1930.

Dear Mr. Basak,

I read with living interest your pamphlet on a permanent Educational Museum in Calcutta. It is noticeable, as you well say, how much waste there is in these temporary structures for Educational exhibits put up in Calcutta and round about it. If a permanent Institution be maintained, many of the Schools and Colleges, including the University, could contribute to it and even private individuals. * * *

I assure of my hearty support in your beneficial scheme, whatever that service may be.

Yours sincerely,
H. W. B. Moreno, Ph. D.

Corporation of Calcutta,
Education Department,
The 24th November, 1931.

Dear Sir,

I have received a copy of your scheme of the Educational Museum in Calcutta.

I appreciate it. It has been filed for future reference.

Yours faithfully,
U. D. Chattopadhyaya,
Education Officer.

"* * The idea, if given effect to, will no doubt be of great help to those connected with Educational Institutions ; both students and teachers would be able to derive a good deal of profit from it."

"Presidency College Magazine,"
December, 1930.

The Trustees of the Victoria Memorial,
Victoria Memorial Hall,
Park Street P.O.
Calcutta, 22nd December, 1931.

Dear Sir,

I thank you for the courtesy of your Educational scheme which I return herewith.

The accompanying note by Mr. Percy Brown our Curator, who has an extensive knowledge of the subject will, I think, fully explain the situation.

Yours faithfully,

Capt. V. D'Auvergne, M.C.

Superintendent,

This is an ideal proposal, and resolves itself out a Museum which would contain collections illustrating every activity of the human race, both mental and physical. Such a scheme is so comprehensive as to be impracticable, on account of the vast field it covers, the enormous building that would be required to display the exhibits, and of course the immense cost. He does not for certain give an idea of whence all funds are to come from. Perhaps he might be informed.

P. B.

21-17-31.

Tagore Castle,
The 1st. November, 1931.

Dear Sir,

I am directed by the Maharaja Bahadur Sir Prodyot Coomar Tagore to acknowledge receipt of your letter dated the 30th ultimo. In answer I have to inform you that the Maharaja Bahadur regrets exceedingly that he is unable to help you in your scheme for the establishment of an Educational Museum at Calcutta on the lines as outlined by you. He however requests you to forward your Memorandum to the Secretary to the Trustees of the Indian Museum for the consideration of the Trustees.

I am directed to return the brochure which you were good enough to send for the Maharaja Bahadur's perusal with his best thanks.

Yours faithfully,
Personal Assistant.

1, Durponarain Tagore Street,
Calcutta, 9-12-31.

Dear Sir,

Your letter dated the 4th inst. addressed to Mr. Tagore. In reply I am directed to say that Mr. Tagore very much appreciates your scheme for the establishment of an "Educational Museum" at Calcutta.

Yours faithfully,
A. N. Bose,
Private Secretary.

City College,
Calcutta, 5th December 1931.

Dear Sir,

I have read your publication about Museums with a good deal of interest and have asked my pupils to collect samples to which they assented.

More informations will be supplied as the collection increases, and they are to be sent to yourself for your valuable suggestions.

I remain,

Dear Sir,

Yours faithfully,
Jitendra Nath Sen, M.Sc.
Professor of Science.

M. N. Bose, M.B., C.M. (Edin.)

14, Baloram Ghose Street,
Calcutta, 4-1-32.

Dear Mr. Basak,

I thank you for sending me a printed copy of your scheme for the establishment of an Educational Museum. I am glad to say that your scheme is a very good one and is likely to be of much educative value to the students and others for whom it is meant.

Yours truly,
M. N. Bose.



